

OMB APPROVAL	
OMB Number:	3235-0287
Estimated average burden hours per response:	0.5

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

1. Name and Address of Reporting Person* NELSEN ROBERT (Last) (First) (Middle) 8755 WEST HIGGINS ROAD, SUITE 1025 (Street) CHICAGO IL 60631 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol Prime Medicine, Inc. [PRME]	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) Other (specify below)
	3. Date of Earliest Transaction (Month/Day/Year) 10/24/2022	
4. If Amendment, Date of Original Filed (Month/Day/Year)		6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	10/24/2022		C		5,728,297	A	(1)	5,728,297	I	By ARCH Venture Fund X, L.P.(2)(3)
Common Stock	10/24/2022		C		5,728,297	A	(1)	5,728,297	I	By ARCH Venture Fund X Overage, L.P.(3)(4)
Common Stock	10/24/2022		P		400,000	A	\$17	6,128,297	I	By ARCH Venture Fund X, L.P.(2)(3)(5)
Common Stock	10/24/2022		P		400,000	A	\$17	6,128,297	I	By ARCH Venture Fund X Overage, L.P.(3)(4)(6)
Common Stock	10/24/2022		C		16,080	A	(1)	16,080	I	See footnote(7)

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Series A Convertible Preferred Stock	(1)	10/24/2022		C		16,666,667	(1)	(1)	(1)	Common Stock	5,361,122	\$0	0	I	By ARCH Venture Fund X, L.P.(2)(3)
Series A Convertible Preferred Stock	(1)	10/24/2022		C		16,666,664	(1)	(1)	(1)	Common Stock	5,361,122	\$0	0	I	By ARCH Venture Fund X Overage, L.P.(3)(4)
Series B Convertible Preferred Stock	(1)	10/24/2022		C		1,141,474	(1)	(1)	(1)	Common Stock	367,175	\$0	0	I	By ARCH Venture Fund X, L.P.(2)(3)
Series B Convertible Preferred Stock	(1)	10/24/2022		C		1,141,474	(1)	(1)	(1)	Common Stock	367,175	\$0	0	I	By ARCH Venture Fund X Overage, L.P.(3)(4)
Series A Convertible Preferred Stock	(1)	10/24/2022		C		49,999	(1)	(1)	(1)	Common Stock	16,080	\$0	0	I	See footnote(7)

Explanation of Responses:

1. The shares of Series A Convertible Preferred Stock and Series B Convertible Preferred Stock (together, the "Preferred Stock") were convertible into Common Stock on a one-for-3.10880 basis at any time at the option of the holder, and automatically converted into the number of shares shown in Column 7 immediately prior to the closing of the Issuer's initial public offering on October 24, 2022. The Preferred Stock had no expiration date.
2. Represents shares held directly by ARCH Venture Fund X, L.P. ("ARCH X"). ARCH Venture Partners X, L.P. ("AVP X LP") is the sole general partner of ARCH X.
3. ARCH Venture Partners X, LLC ("AVP X LLC") is the sole general partner of each of AVP X LP and AVP X Overage LP. The Reporting Person is a member of the investment committee of AVP X LLC, and may be deemed to share the power to direct the disposition and vote of the shares held by ARCH X and ARCH X Overage. The Reporting Person disclaims beneficial ownership except to the extent of any pecuniary interest therein, and this report shall not be deemed an admission that such shares are beneficially owned by him for Section 16 or any other purpose.
4. Represents shares held directly by ARCH Venture Fund X Overage, L.P. ("ARCH X Overage"). ARCH Venture Partners X Overage, L.P. ("AVP X Overage LP") is the sole general partner of ARCH X Overage.
5. Reflects shares purchased by ARCH X in the Issuer's initial public offering.
6. Reflects shares purchased by ARCH X Overage in the Issuer's initial public offering.
7. Shares held by a trust for the benefit of family members of the Reporting Person.

Remarks:

/s/ Carman Alenson attorney-in-
fact 10/26/2022

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

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